

REMARKS

This Amendment responds to the Office Action dated May 22, 2006 in which the Examiner objected to claim 5 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form, stated that claims 9-11, 13 and 15 are allowed and rejected claims 1-4, 6-8, 12 and 14 under 35 U.S.C. §103.

As indicated above, claim 5 has been rewritten into independent form. Therefore, Applicant respectfully requests the Examiner withdraw the objection to claim 5.

As indicated above, claim 7 has been incorporated into claims 1, 12 and 14. The amendment is unrelated to a statutory requirement for patentability. Additionally, since claim 7 has already been considered by the Examiner, Applicant respectfully submits that there are no new issues for consideration or search.

Claim 1 claims an equipment management apparatus, claim 12 claims an equipment management system and claim 14 claims an equipment management method. The equipment management apparatus, system and method transmit management information collected from a plurality of equipment to a centralized management apparatus. The equipment management apparatus and method include a detector and a transmission controller. The detector is for detecting a trouble which has occurred in first equipment. The transmission controller is for, when the trouble is detected by the detector, transmitting management information about second equipment which is other than the first equipment together with the trouble information about the first equipment to the centralized management apparatus. The equipment is an image forming apparatus for forming an image on a sheet.

Through the structure and method of the claimed invention collecting information from a plurality of image forming apparatuses and transmitting management information about second image forming apparatuses together with the trouble information about the first image forming apparatus to a centralized management apparatus as claimed in claims 1, 12 and 14, the claimed invention provides an equipment management apparatus, system and method in which a management center can recognize the conditions of the image forming apparatuses in which no abnormality has been detected as well as apparatuses in which problems have occurred so that a service engineer dispatched to deal with a machine having a problem can also do preventive maintenance on apparatuses which will need maintenance in the future. The prior art does not show, teach or suggest the invention as claimed in claims 1, 12 and 14.

Claims 1-4, 6-8, 12 and 14 were rejected under 35 U.S.C. §103 as being unpatentable over *Kageyama* (U.S. Publication No. 2002/0018681).

Applicant respectfully traverses the Examiner's rejection of the claims under 35 U.S.C. §103. The claims have been reviewed in light of the Office Action, and for reasons which will be set forth below, Applicant respectfully requests the Examiner withdraws the rejection to the claims and allows the claims to issue.

Kageyama appears to disclose [0032] the overall construction of the printing system is described, referring to FIG. 1. [0033] The printing system is composed of a first network 110, a second network 120, a first computer 300, and a printer 200 connected to the first network 110, and a second computer 400 connected to the second network 120. [0036] The first computer 300 instructs the printer 200 to print a document composed by an application program 3140 using a printer logic driver

3130. [0037] The printer 200 has a printer controller 2100 and a printer engine 2200, and the printer controller has an individual printer management part 2120 and an individual printer information DB part 2121 in order to manage the printer. [0038] The second computer 400 has a total printer management service processing part 4120 and a total printer management information DB part 4130 in order to manage a plurality of printers including the printer 200. [0078] Initially, the printer engine 2200 detects the occurrence of trouble. Examples of the troubles considered are shortage of consumable articles, such as paper, toner, and so on, a paper jam, an open door, a loss of printer power, a failure in the fixing unit, a failure in the optical system, a failure in the printing system, and so on. [0079] The printer controller 2120 receives information on the occurrence of trouble in the printer engine 2200 and the contents thereof (process 701). As the receiving method, there are a method in which the printer engine 2200 actively reports to the printer controller 2100 and a method in which the printer controller 2100 periodically monitors the status of the printer engine 2200. Either of the methods may be employed, or both of them may be used together. [0080] Then, the first computer 300 receives information on the occurrence of trouble in the printer engine 2200 and the identification of the trouble from the printer controller 2100 (process 702). As the receiving method, there are a method in which the printer controller 2100 actively reports to the first computer 300 and a method in which the first computer 300 periodically monitors the status of the printer controller 2100. Either of the methods may be employed, or both of them may be used together. [0081] Then, the first computer 300 issues an inquiry to the printer controller 2100 as to a method of coping with the trouble (process 703). The inquiry is issued using the user interface

of the first computer 300 when the first computer 300 is informed of the occurrence of the trouble. [0082] After that, the printer controller 2100 transmits the contents of the inquiry to the second computer 400 (process 706). The action of the process 706 is called inquiry forwarding. It also may be referred to as an agent inquiry. [0083] Next, the total printer management service processing part 4120 of the second computer 400 obtains a reply to the inquiry by retrieving and referring to the contents of the total printer management information DB part 4130 (process 705). Then, the total printer management service processing part 4120 transmits the reply to the printer controller 2100 in the printer 200 (process 704). The action of the process 704 is called replying. It is also known as an agent reply. [0084] Then, the printer controller 2100 forwards the received reply to the first computer 300 (process 707). The action of the process 707 is called reply forwarding. It also may be referred to as a formal reply. The first computer 300 displays the reply on a screen using the user interface to show the reply to the inquiry to the user which has issued the inquiry. [0086] According to the first embodiment, when a user wants to know about a method of coping with printer trouble or an advanced method of using a printer, the user can automatically access the data base in a service center of the printer manufacturer and obtain a reply to the inquiry on the computer simply by sending an inquiry to a printer at hand through the computer at hand usually used by the user. Therefore, a problem in the conventional technology can be solved and the usability of the printer can be improved.

Thus, *Kageyama* merely discloses a single printer 200 having a print controller 2100 and a printer engine 2200. Nothing in *Kageyama* shows, teaches or suggests collecting management information from a plurality of image forming

apparatuses as claimed in claims 1, 12 and 14. Rather, *Kageyama* merely discloses a single printer 200.

Additionally, *Kageyama* merely discloses a second computer 400 which replies to inquiries from the printer controller 2100 of the printer 200. Nothing in *Kageyama* shows, teaches or suggests transmitting management information from a plurality of image forming apparatuses to a centralized management apparatus as claimed in claims 1, 12 and 14. Rather, *Kageyama* merely discloses a second computer 400 which forwards replies to inquiries from a printer controller 2100.

Also, *Kageyama* merely discloses a printer controller 2100 sending information on the occurrence of a trouble and the identification of the trouble to a first computer 300 [0080]. Nothing in *Kageyama* shows, teaches or suggests transmitting management information about second image forming apparatuses (i.e., equipment which is other than first equipment) together with trouble information about a first image forming apparatus as claimed in claims 1, 12 and 14. Rather, *Kageyama* only discloses sending information on the occurrence of trouble in a print engine 2200 of printer 200 and the identification of the trouble from a printer controller 2100. In other words, the identification of the trouble sent from the printer controller 2100 to the first computer 300 is not management information about second image forming apparatuses as claimed in claims 1, 12 and 14.

Applicant respectfully traverses the Examiner's statement that printer controller 2100 and printer 2200 are analogous to first and second equipment. Applicant respectfully points out that printer engine 2200 and printer controller 2100 are both part of the same printer 300.

Since nothing in *Kageyama* shows, teaches or suggests a) a plurality of image forming apparatuses, b) transmitting management information collected from a plurality of image forming apparatuses to a centralized management apparatus, c) transmitting management information together with trouble information and d) transmitting information about second image forming apparatuses together with trouble information about the first image forming apparatus as claimed in claim 1, 12 and 14, Applicant respectfully requests the Examiner withdraws the rejection to claims 1, 12 and 14 under 35 U.S.C. §103.

Claims 2-4, 6 and 8 depend from claims 1 and recite additional features. Applicant respectfully submits that claims 2-4, 6 and 8 would not have been obvious within the meaning of 35 U.S.C. §103 over *Kageyama* at least for the reasons as set forth above. Therefore, Applicant respectfully requests the Examiner withdraws the rejection to claims 2-4, 6 and 8 under 35 U.S.C. §103.

Applicant respectfully submits that since claim 7 has been incorporated into claims 1, 12 and 14, there are no new issues for consideration or search.

Thus, it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested. Should the Examiner find that the application is not now in condition for allowance, Applicant respectfully requests the Examiner enters this Amendment for purposes of appeal.

If for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is requested to contact, by telephone, the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, Applicant respectfully petitions for an appropriate extension of time. The fees for such extension of time may be charged to Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge our Deposit Account No. 02-4800.

Respectfully submitted,

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